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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,361	11/23/2001	Mark S. Pelak	MSP-2	5889

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09/12/2003

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EXAMINER

BUMGARNER, MELBA N

ART UNIT

PAPER NUMBER

3732

DATE MAILED: 09/12/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/002,361

Applicant(s)

PELAK, MARK S.

Examiner

Melba Bumgarner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 7, 8, 10, and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 7, it is unclear whether the abutment "including coupling means for a resilient retentive fit" in line 11 is the same as the retentive element in line 6, the tapered surface which is does not appear to be resilient, or another element. In claim 7, the phrase "an upwardly and inwardly *extending facing* a mating tapered surface" and in claim 10, "said retentive element is a plane" requires correction.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lueschen (5,049,072) in view of Kwan (6,068,479). Lueschen discloses dental prosthesis comprising an implant abutment 14 affixed at a lower end to a dental implant 12, having a threaded shaft 44 which is to be received in a threaded bore 42 formed in the dental implant; the abutment having an implant abutment axis; a

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groove 26 in the abutment extending substantially transverse to the axis and O-ring 16 of elastomeric material extending substantially transverse to the axis and elastically retained in the groove, the O-ring having a cross-sectional diameter substantially greater than the depth of the groove such that outer portion of the O-ring projects from an outer axial surface of the abutment; and an appliance 18 having a retainer cavity (column 1 line 27) including a retainer surface matching the outer abutment surface, a complementary groove in retainer surface 52 shaped to closely match and receive the outer portion of the O-ring. Lueschen does not show the abutment having the shaft of metal. It would have been an obvious matter of choice to one of ordinary skill in the art to have the shaft of metal as it is well known in the art in making the implant and mating abutments of metal. However, Kwan teaches dental prosthesis comprising an implant abutment of metal (column 14 line 66). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the abutment of Lueschen to be made of metal in order to have the abutment that has good strength, durability and machineability. As to claim 2, the abutment includes a tapered surface 28. As to claim 3, the abutment is threadedly connected to the implant. As to claim 5, Lueschen shows the appliance is processed into a denture (column 1 line 61). As to claim 13, Kwan shows appliance formed from metal and processed into a splinted bar 192.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lueschen in view of Kwan and further in view of Beaty et al. (5,476,383). The modified prosthesis of Lueschen and Kwan shows the limitations as described above; however, they do not

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show the appliance formed from porcelain fused to metal. Beaty et al. teach appliance of porcelain fused to metal (column 1 line 21) that is used with dental implant and abutment. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the prosthesis to have porcelain fused to metal appliance in order to provide appliance that closely replicate natural dentition in appearance in view of Beaty et al.

5. Claims 7, 8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lueschen in view of Kwan and further in view of Baum (4,681,542). The modified prosthesis of Lueschen and Kwan shows the limitations as described above; however, they do not show the appliance cavity with an outwardly and downwardly taper relative to the axis forming a retainer surface telescopically mateable on an upwardly and inwardly tapered surface on the abutment. Baum teaches a dental prosthesis comprising an appliance 50 (retainer) having a cavity 52 with an outwardly and downwardly taper relative to the abutment axis forming a retainer surface telescopically mateable on an upwardly and inwardly tapered surface on the abutment (column 4 lines 33-49). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the appliance and abutment to have the surfaces of Baum. One would have been motivated to make such a modification to have a smooth and tapered shape for improved fit between the surfaces resulting in precise mounting having the optimum retentive force between the appliance and abutment as taught by Baum. As to claim 8, the surfaces are in frictional engagement (column 2 line 47). As to claims 10 and 11, Baum shows the retentive

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element is in a plane generally transverse to the axis, and is an O-ring 38 in complementary grooves.

Response to Arguments

6. Applicant's arguments with respect to claims 1-8 and 10-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

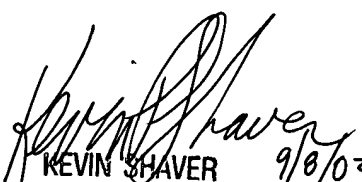
7. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Melba Bumgarner whose telephone number is 703-305-0740. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (703) 308-2582. The fax phone number for the organization where this application or proceeding is assigned is 703-308-2708.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.



Melba Bumgarner



KEVIN SHAVER 9/8/03
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700